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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,475	01/13/2004	Louis E. Heuck	09011.0001	9937

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER	
ZHONG, JUN FEI	
ART UNIT	**PAPER NUMBER**
2623	
MAIL DATE	**DELIVERY MODE**
09/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/755,475	HEUCK, LOUIS E.	
	Examiner	Art Unit	
	Jun Fei Zhong	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Paragraph [0032] "Head end switch 120" should change to "Head end switch 128". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7 and 9-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin (Pub # US 2004/0128695) in view of Wilson (Pub # US 2002/0184649).

As to claim 15, Shin discloses an apparatus (e.g., channel allocating switch 5; Fig. 3) for transmitting multimedia data, comprising:

means for receiving a plurality of signals that carry the multimedia data (e.g., channel allocating switch 5 receive signals from distributing servers 1-1 to 1-N, default server 2, internet 4; Fig. 3) (see paragraph 0039);

means for encoding the plurality of signals into respective streams (e.g., channel allocating switch 5 allocates television contents to broadcast VLANs) (see paragraph 0044);

means for identifying each of the respective streams with an identifier that identifies a virtual broadcast domain (e.g., using IEEE802.1Q standard which is configured to insert an appropriate VLAN tag into all data frames for broadcasting) (see paragraph 0042);

means for transmitting the stream (e.g., channel allocating switch 5 forwards contents to channel allocating switch 8-1; Fig. 3) (see paragraph 0040, 0045).

Shin does not specifically disclose combining a set of the respective streams into at least one additional stream.

Wilson discloses means (e.g., combiner 230; Fig. 2) for associating a set of the respective streams into at least one additional stream (see paragraph 0042);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine a set of streams as taught by Wilson to the television broadcast content distributing system of Shin because the headend is receiving and transmitting programming in a digital format, for example, Moving Pictures Expert Group (MPEG) format, instead of an analog format. Transmitting programs in MPEG format is advantageous because multiple digitized programs can be combined and transmitted (see paragraph 0003).

As to claim 16, Shin discloses an apparatus for delivering multimedia data, comprising:

means (e.g., channel allocating switch 8-1 (8-2)) for receiving a plurality of streams each having a corresponding tag that identifies a virtual broadcast domain

(e.g., channel allocating switch 8-1 receives VLAN signals (it is well known in the art that VLAN standard is configured to have an appropriate VLAN tag in each data frams); Fig. 3) (see paragraph 0042, 0052);

means (e.g., channel allocating switch 8-1 (8-2)) for identifying each of the second plurality of streams based on their corresponding tags (see paragraph 0042, 0052);

means (e.g., channel allocating switch 8-1 (8-2)) for selecting at least one of the second plurality of streams that has been requested by a subscriber (e.g., control section 811 received channel change request from terminal 7-2) (see paragraph 0042, 0052, 0062-0064);

means for transmitting the selected one of the second plurality of streams based on extending the virtual broadcast domain to the subscriber (see paragraph 0062-0066).

Shin does not specifically disclose a first stream that includes a plurality of second streams.

Wilson discloses a first stream that includes a plurality of second streams (e.g., subscriber location 108 receiving streams from combiner 346 which are combined streams from multiple sources) (see paragraph 0049).

As to claim 17, Shin discloses a system (Fig. 3) for providing multimedia data, comprising:

at least one encoder (e.g., channel allocating switch 5) for encoding signals into respective streams each having a unique virtual broadcast domain (e.g., channel

allocating switch 5 allocates television contents to broadcast VLANs (each VLAN has a unique tag)) (see paragraph 0044);

a first switch (e.g., channel allocating switch 5; Fig. 3) for transmitting at least one stream through a network (e.g., channel allocating switch 5 forwards contents to channel allocating switch 8-1(8-2) over network 6; Fig. 3) (see paragraph 0045);

a second switch (e.g., channel allocating switch 8-1 (8-2)) for receiving the stream from the network and extending the virtual broadcast domain of one of the respective streams to subscribers requesting the respective stream (e.g., control section 811 received channel change request from terminal 7-2, and allocating the VLAN (channel) to user) (see paragraph 0062-0066).

Wilson discloses combining (e.g., combiner 230; Fig. 2) a set of the streams into at least one additional stream (see paragraph 0042).

As to claims 1 and 10, they contain the limitations of claims 15-16 and are analyzed as previously discussed with respect to claims 15-16 above.

As to claim 2, Shin discloses associating a set of the respective streams into at least one additional stream further comprises associating the set of the respective streams based upon the demand of subscribers associated with an intermediate point (e.g., packet P1 and P2 branched from router 130-1 to 130-2, because terminal 102-1 and 102-2 share the local router 103-2; Fig. 1) (see paragraph 0033).

As to claims 3 and 22, they contain the limitations of claim 17 and are analyzed as previously discussed with respect to claim 17 above.

As to claim 4, Shin discloses the method of claim 3, wherein the intermediate point comprises a local hub (e.g., channel allocating switch 8-1 (8-2)) (see paragraph 0052).

As to claim 5, Wilson discloses the method of claim 1, wherein receiving the plurality of signals comprises receiving at least one feed signal that is carrying a digital television signal (see paragraph 0030).

As to claim 6, Wilson discloses the method of claim 1, wherein encoding the plurality of signals into respective streams comprises encoding the plurality of signals into a MPEG stream (see paragraph 0030, 0039).

As to claim 7, Shin discloses the method of claim 1, wherein identifying each of the respective streams comprises inserting a tag that identifies a virtual local area network into each of the respective streams (e.g., using IEEE802.1Q standard which is configured to insert an appropriate VLAN tag into all data frames for broadcasting) (see paragraph 0042).

As to claim 9, Wilson discloses the method of claim 1, wherein the plurality of signals include at least one of a personal video recording signal and a video on demand signal (see paragraph 0030).

As to claims 11 and 18, they contain the limitations of claim 6 and are analyzed as previously discussed with respect to claim 6 above.

As to claim 12, it contains the limitations of claim 7 and is analyzed as previously discussed with respect to claim 7 above.

As to claim 13, Shin discloses the method of claim 10, wherein selecting at least one of the second plurality of streams that has been requested by the subscriber, comprises:

querying the subscriber for a requested stream (e.g., step 802; Fig. 11) (e.g., ask user to select a channel; Fig. 10);

determining a virtual broadcast domain of the requested stream (e.g., step 803) (see paragraph 0058-0059);

selecting one of the second plurality of streams having a tag that corresponds to the virtual broadcast domain of the requested stream (e.g., step 805) (see paragraph 60).

As to claim 14, Shin discloses the method of claim 10, wherein transmitting the selected one of the second plurality of streams based on extending the virtual broadcast domain to the subscriber, comprises:

determining a port that is coupled to the subscriber (e.g., each user terminal has a fix MAC address storing in 812; Fig. 6 and 7) (see paragraph 0052-0053);

allocating the port to the virtual broadcast domain of the selected one of the second plurality of streams (see paragraph 0056, 0060).

As to claim 19, it contains the limitations of claim 2 and is analyzed as previously discussed with respect to claim 2 above.

As to claim 20, Shin disclose the system of claim 17, wherein the first switch determines the set of streams based on a preselected set of the streams (e.g., channels 1-N and Internet channel) (see paragraph 0057).

Wilson discloses combining (e.g., combiner 230; Fig. 2) a set of the streams into at least one additional stream (see paragraph 0042).

As to claim 21, Shin discloses the system of claim 17, wherein the first switch advertises to the second switch the respective virtual broadcast domains of all of the respective streams (see paragraph 0045-0046).

As to claim 23, it contains the limitations of claim 14 and is analyzed as previously discussed with respect to claim 14 above.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shin in view of Wilson as applied to claims 1-7 and 9-23 above, and further in view of Eldering et al. (Patent # US 6704930 B1).

As to claim 8, note the discussion above, both Shin and Wilson fail to disclose statistically multiplexing the respective streams into a single constant bit rate stream.

Eldering disclose statistically multiplexed the respective streams (e.g., program streams) into a single constant bit rate stream (see col. 4, lines 16-38 and 53-62; Fig. 2 and 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide statistically multiplexed as taught by Eldering to the television broadcast content distributing system of Shin as modified by Wilson because it permit the amount of bandwidth allocated to a program stream to be varied (see col. 3, lines 25-30).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sanchez (Pub # US 2004/0090970 A1) is cited to teach data flows over TV distributed network.

Phillips et al. (Pub # US 2004/0172657 A1) is cited to teach broadcasting TV over ADSL/DBS network.

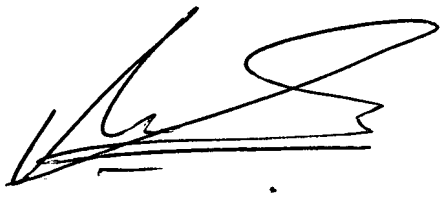
Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jun Fei Zhong whose telephone number is 571-270-1708. The examiner can normally be reached on Mon-Fri, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JFZ
09/17/2007



VIVEK SRIVASTAVA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600